**Application No.:** 10/001,289

Office Action Dated: January 29, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:** 

1. (Currently amended) A method for loading hierarchical data into a first

relational table comprising:

identifying a first node within the hierarchical data corresponding to a first column in the first relational table and <u>a</u> second node associated with the first node corresponding to data to be stored in a row of the first relational table at a location corresponding to the first

column;

storing the data from the first node in a record in a first buffer associated with the first

relational table;

identifying a third node within the hierarchical data corresponding to a first column in a second relational table and fourth node associated with the third node corresponding to data

to be stored in a row of the second relational table;

storing the data from the third node in a record in a second buffer associated with the

second relational table; and

copying the record from the first buffer to the first relational table and the record from the second buffer to the second relational table.

2. (Original) The method as recited in claim 1 wherein the relational table is part

of a relational database.

3. (Original) The method as recited in claim 1 wherein the hierarchical data is

XML data.

4. (Original) The method as recited in claim 1 wherein the hierarchical data is

identified to correspond to a column in the relational table by way of a hierarchical schema.

5. (Previously presented) The method as recited in claim 1 wherein the data is

stored in the record of the buffer associated with first table after determining that the parent

node of the first node within the hierarchical data is associated with the first relational table.

6. (Canceled)

Page 2 of 9

**DOCKET NO.:** MSFT-0766 / 191575.01 **Application No.:** 10/001,289

Office Action Dated: January 29, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

7. (Previously presented) The method as recited in claim 5 further comprising storing a record in a second buffer corresponding to the second relational table when the third node within the hierarchal data corresponds to a second relational table.

8. (Previously presented) The method as recited in claim 7 further comprising: storing the record in the second buffer associated with the second relational table when a child node of the third node indicates that the hierarchical data comprises data associated with a column in the second relational table; and

copying the record from the second buffer to the second relational table.

- 9. (Original) The method as recited in claim 8 further comprising copying the record from the first buffer to the first relational table substantially in parallel to copying the record from the second buffer to the second relational table.
- 10. (Original) The method recited in claim 9 wherein the first relational table has a relational relationship with the second relational table.
- 11. (Original) The method as recited in claim 1 wherein the first buffer comprises a disk file.
- 12. (Original) The method as recited in claim 1 wherein the hierarchical data comprises an XML document.
  - 13. (Canceled)
- 14. (Currently amended) A method for loading hierarchical data into at least two different relational tables, comprising:

receiving a schema describing a relationship of nodes in the hierarchical data to at least one column in each of the at least two different relational tables:

mapping the hierarchical data to the at least one column in each of the at least two different relational tables based on the schema and creating in at least two different files where each file is associated with one of at least two different relational tables a file records from the hierarchical data from nodes identified as data to be stored in the at least one column in each of the at least two different relational tables; and

**Application No.:** 10/001,289

Office Action Dated: January 29, 2007

**PATENT** REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 CFR § 1.116

streaming the records into the at least two different relational tables by inserting the records from the at least two different files file into corresponding ones of the at least two different relational tables.

15. (Previously presented) The method as recited in claim 14 further comprising creating a buffer for each of the at least two relational tables wherein the records are stored before being streamed into the at least two different relational tables.

16. (Canceled)

17. (Original) The method as recited in claim 14 wherein the hierarchical data is not size constrained.

- 18. (Original) The method as recited in claim 14 wherein the hierarchical data comprises an XML document.
- 19. (Original) The method as recited in claim 14 wherein the schema comprises an XML schema.
- 20. (Previously presented) The method as recited in claim 14 wherein the at least two different tables have a relational relationship.
- 21. (Previously presented) The method as recited in claim 20 wherein one of the at least one columns is a key field in one of the at least two different tables and foreign key in the other one of the at least two different tables, wherein the method further comprises populating records associated with the at least two different tables with the data associates with the one of the at least one columns.
- 22. (Previously presented) The method as recited in claim 14 further comprising streaming the record into the at least two different relational tables substantially in parallel.
- 23. (Original) The method as recited in claim 14 wherein the schema is received by way of a network connection.
  - 24. (Canceled)

**Application No.:** 10/001,289

Office Action Dated: January 29, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

25. (Currently amended) A system for loading hierarchical data into at least two different relational tables, comprising:

instructions for receiving a schema describing a relationship of nodes in the hierarchical data to at least one column in each of the at least two different relational tables;

instructions for mapping the hierarchical data to the at least one column in each of the at least two different relational tables based on the schema and creating at least two different files where each file is associated with one of at least two different relational tables records from the hierarchical data from nodes associated identified as data to be stored in the at least one column in each of the at least two different relational tables; and

instructions for streaming the records into the at least two different relational tables by inserting the records <u>from the at least two different files</u> into <u>corresponding ones of</u> the at least two different relational tables.

- 26. (Previously presented) The system as recited in claim 25 further comprising instructions for creating a buffer for each of the at least two different relational tables wherein the records are stored before being streamed into the at least two different relational tables.
- 27. (Original) The system as recited in claim 26 wherein the buffer comprises a file.
- 28. (Original) The system as recited in claim 25 wherein the hierarchical data comprises an XML document.
- 29. (Original) The system as recited in claim 25 wherein the schema comprises an XML schema.
- 30. (Original) The system as recited in claim 25 wherein the at least two tables have a relational relationship.

**Application No.:** 10/001,289

Office Action Dated: January 29, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

31. (Original) The system as recited in claim 25 wherein one of the at least one columns is a key field in one of the at least two tables and foreign key in the other one of the at least two tables, wherein the system further comprises instructions for populating records associated with the at least two tables with the data associates with the one of the at least one columns.

32. (Original) The system as recited in claim 25 further comprising instructions for streaming the record into the at least two relational tables substantially in parallel.